

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/031,001

PATENT APPLICATION

REMARKS

Claims 1-19 are all the claims pending in the application, claims 20-25 having been canceled without prejudice or disclaimer.

Applicants thank the Examiner for allowing claims 14-19.

Claims 1-2 and 6-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over USP 5,422,486 to Herrmann et al. in view of USP 4,849,629 to Daimon et al. and USP 5,166,519 to Turner. Claims 3-5 and 13 are objected to. Applicants respectfully traverse these rejections, and request reconsideration and allowance of the claims in view of the following arguments.

Claim 1 of the present application explicitly recites a drift region reaching from the back surface of a mirror to the front surface of the mirror, and *being positioned away from the optical axis of an objective lens*. The drift region is discussed at page 3, lines 24-29 of the present application. Because the drift region is positioned away from the axis of the objective lens, the area where the axis intersects the mirror can be used as a deflecting region, thus increasing the quality of examination considerably. Because claim 1 refers to a drift region that is positioned away from the optical axis, advantageous areas can be used for the deflection.

In rejecting claims based on Herrmann, the Examiner has asserted that a drift place 20 shown in Fig. 4 of Herrmann teaches the recited drift region. Applicants respectfully disagree.

Herrmann discloses an electron beam tester and a scanning electron microscope, which *retain the straight axis of a primary electron beam* and at the same time reflect the secondary electron beam by a large angle (Herrmann, col. 1, lines 55-62). Fig. 4 of Herrmann shows an electrostatic reflector 19 used as a reflector 9 in a scanning electron microscope shown in Fig. 1

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of Herrmann or an electron beam tester shown in Figs. 2 and 3 of Herrmann. The electrostatic reflector 19 is arranged in the beam path of a primary electron beam 2, and has an aperture 20 for the primary electron beam to pass through. The primary electron beam 2 passes through the aperture 20 and an object lens 4, and is reflected by a specimen.

Nothing in Herrmann suggests that the aperture 20 is positioned away from the optical axis of the object lens 4. In contrast, as mentioned above, the purpose of Herrmann is to retain the straight axis of the primary electron beam and at the same time reflect the secondary electron beam by a large angle. If the aperture 20 of Herrmann is positioned away from the optical axis, the primary electron beam 2, with a straight optical axis, will not be able to reach the specimen, and the Herrmann microscope or electron beam tester will not work.

Although the electrostatic reflector 19 shown in Figs. 7 and 8 of Herrmann is positioned away from the optical axis of the object lens, it does not have a drift region reaching from the back surface of a mirror to the front surface of the mirror. Again, the aperture 20 in Herrmann is used to pass the primary electron beam. If the reflector is positioned away from the optical axis of the object lens, the aperture is not needed at all.

Thus, Herrmann fails to teach or suggest the drift region recited in claim 1 of the present application. Neither Daimon nor Turner supplies any of Herrmann's deficiencies. Thus, claim 1 of the present application is patentable. Dependent claims 2-13 are patentable at least by virtue of their dependence on the patentable independent claim.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

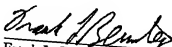
SUGHRUE MION, PLLC
Telephone: (650) 325-5800
Facsimile: (650) 325-6606

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Date: October 21, 2003


Frank L. Bernstein
Registration No. 31,484

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this AMENDMENT UNDER 37 C.F.R. § 1.111 is being facsimile transmitted to the U.S. Patent and Trademark Office this 21st day of October 2003.

Signed:


Leslie Gates-Moulton

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